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Investigation of flows in boundary layers in processes of thin-layer separation

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Abstract

Analytical expressions have been obtained to determine lateral profiles of velocity distribution in boundary layers of separated phases, when monodisperse emulsions are separated. Equations, determining the thickness of boundary layers, have been formulated. The general picture of phase flows in the interplate clearances of the separator has been investigated. Thus, a simplified mathematical model has been developed to investigate the process of separating a monodisperse mixture in separators.